



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,532	05/20/2002	Rolf Hartung	EF377398953US	4148
21003	7590	07/19/2007	EXAMINER	
BAKER BOTTS L.L.P. 30 ROCKEFELLER PLAZA 44TH FLOOR NEW YORK, NY 10112-4498			KEENAN, JAMES W	
			ART UNIT	PAPER NUMBER
			3652	
			MAIL DATE	DELIVERY MODE
			07/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/030,532	HARTUNG, ROLF
Examiner	Art Unit	
James Keenan	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 March 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 17,18,21,22,25,26,28 and 31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 17,18,21,22,25,26,28 and 31 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

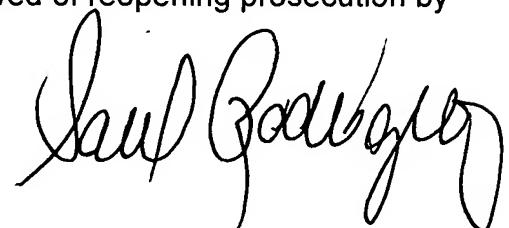
1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application
6) Other:

1. In view of the appeal brief filed on 3/28/07, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



2. The amendment filed 12/21/05 remains objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the recitation that the cooling plate, heating plate, and loading station are disposed "about a linear axis (e.g., substantially parallel to the rails ...)", as set forth in par. 21. Regardless of whether or not drawings in patent applications are required to be proportional, as alleged by

applicant, figure 1 as originally filed simply does not show sufficient detail such that one could conclude with any degree of certainty that the heating and cooling plates and the loading station are disposed about a linear axis parallel to the rails.

Applicant is required to cancel the new matter in the reply to this Office Action.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17, 18, 21, 22, 25, 26, 28, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17, line 8, the phraseology "in front of" is vague in that the chamber has not been set forth as having any particular directional orientation such as front, rear, etc., and thus such a limitation would appear to be patentably meaningless.

Similarly, in line 10, the terminology "transverse" is vague in that it fails to specify relative to what the guide is transversely arranged.

Furthermore, the recitation in line 11 of "at least one fork arranged in a mount ... to move with ... two degrees of freedom" is unclear. Does this refer to the fork, or the mount, or both?

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17, 18, 21, 22, 25, 26, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonemizu et al (US 5,958,145, previously cited) in view of Parodi et al (US 5651,823, previously cited) and Soraoka et al (5,855,726).

Yonemizu shows a wafer handling apparatus configured to place wafers from a cassette C disposed on a loading station 1 into a processing chamber 2 comprised of heating and cooling stations 22, comprising “external” handling device 11 having a wafer holding section (not explicitly labeled), which is considered to be “grippers”, absent any structural limitations of the term, the external handling device disposed in front of the processing chamber for transferring wafers between a cassette and the processing chamber, and “internal” handling device 3 within the chamber, the internal handling device inherently provided with a “transverse guide”, as broadly and indefinitely claimed, and having a fork 31 arranged in a mount for moving with at least two degrees of freedom (col. 6, lines 4-17), the fork arranged to receive a wafer from the external handling device and to move wafers between the heating and cooling plates and back to the external handling device, wherein the cassette is disposed on the loading station in front of the processing chamber.

Parodi, as noted in previous Office actions, shows a similar apparatus including cassettes disposed on loading stations 19, 20 in front of processing chamber 17, heating and cooling stations 124, 126, 128 disposed “one in front of the other”,

"external" handling device 13 having grippers 14, "internal" handling device 208 with transverse guide 324, and enclosure 11 surrounding the processing chamber and the external handling device.

Soraoka shows a vacuum processing apparatus for wafers including enclosure 100, cassette loading station 16, external handling device 9, internal handling device 10, and vacuum processing chambers 6, 7.

Yonemizu does not explicitly show an enclosure surrounding the external handling device and the chamber. However, it is extremely well known in the wafer handling art to process wafers in a clean room environment, i.e., one in which an enclosure would surround the critical working components of the system to ensure cleanliness. Therefore, if not inherent, it would be highly likely that an enclosure would be a desirable feature of the Yonemizu apparatus. Furthermore, both Parodi and Soraoka show an enclosure as claimed in a similar environment. It therefore would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Yonemizu by adding an enclosure, if not inherent, as shown by Parodi and Soraoka, to ensure cleanliness in the working environment.

Yonemizu shows the heating and cooling stations to be vertically stacked on top of each other, rather than one in front of the other. As noted above, Parodi shows the heating and cooling stations to be disposed one in front of the other, and in view of this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Yonemizu with such a feature, as this would

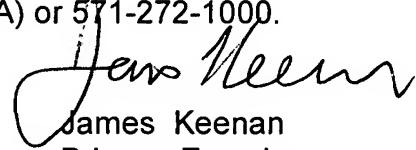
merely be an art recognized alternate equivalent means of arranging heating and cooling stations in a wafer processing environment.

Yonemizu does not show the processing chamber to be a vacuum chamber. However, it is extremely well known in the wafer handling art to process wafers in a vacuum chamber. Furthermore, as noted above, Soraoka shows the processing chamber to be a vacuum chamber. Soraoka also shows the cassette loading station and the external handling device to be outside the vacuum chamber. The vacuum processing chamber can include various types of processing, including rinsing (i.e., washing), which is the type of processing disclosed by Yonemizu. Thus, it would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Yonemizu by providing the processing chamber as a vacuum chamber, as shown by Soraoka, as this would merely be a well known and art recognized means of processing (including washing) wafers in a chamber.

7. Applicant's arguments with respect to claims 17, 18, 21, 22, 25, 26, 28, and 31 have been considered but are moot in view of the new ground(s) of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



James Keenan
Primary Examiner
Art Unit 3652

jwk
7/16/07